

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently amended) A method for replacing an attachment to an email
2 message with a reference to a location of the attachment, comprising:
3 receiving the email message;
4 examining the email message to determine if the email message includes
5 an attachment; and
6 if the email message includes the attachment, asking a sender of the email
7 message whether to replace the attachment with a reference specifying the
8 location of the attachment;
9 if the sender agrees to replace the attachment,
10 storing the attachment at a location on a communication
11 network from which the attachment can be retrieved,
12 modifying the email message by replacing the attachment
13 with a reference specifying the location of the attachment on the
14 communication network,
15 sending the modified email message to a recipient of the
16 email message,
17 providing proof of receipt of the contents of the attachment,
18 wherein providing proof of receipt involves:
19 delivering an encrypted version of the
20 attachment,

21 receiving a receipt for the encrypted version
22 of the attachment, wherein the receipt includes a
23 hash of the encrypted attachment, and
24 in response to receiving the receipt for the
25 encrypted version, sending the decryption key for
26 the attachment, wherein sending the decryption key
27 for the attachment in response to receiving the
28 receipt for the encrypted version proves reception of
29 the exact contents of the attachment, and
30 deleting the attachment from the location on the
31 communication network after one of:
32 receiving a notification that all recipients of
33 the email message have retrieved the attachment,
34 and
35 receiving a notification that all recipients of
36 the email message have deleted the email message.

1 2. (Original) The method of claim 1, further comprising:
2 receiving the modified email message at the recipient; and
3 using the reference specifying the location of the attachment to retrieve the
4 attachment across the communication network.

1 3. (Original) The method of claim 2, wherein retrieving the attachment
2 includes authenticating the recipient to a computer system upon which the
3 attachment is stored.

1 4. (Original) The method of claim 1, wherein receiving the email message
2 includes receiving the email message at one of,

3 an application residing on a computer system belonging to a sender of the
4 email message;
5 an email server through which the email message is sent;
6 a firewall that protects at least one trusted computer system from
7 communications across the communication network; and
8 a gateway that converts the email message from a first format to a second
9 format.

1 5. (Original) The method of claim 1, further comprising allowing the
2 attachment to be updated at the location on the communication network.

1 6. (Previously presented) The method of claim 1, further comprising
2 deleting the attachment from the location on the communication network after at
3 least one of:
4 an expiration of a time period;
5 sending a notification to recipients of the email message that the
6 attachment is to be deleted;
7 receiving a command to delete the attachment from a sender of the email
8 message; and
9 storing the attachment to archival storage.

1 7. (Original) The method of claim 1, wherein the communication network
2 includes at least one of:
3 a computer network; and
4 a telephone network.

1 8 (Canceled).

1 9. (Original) The method of claim 1, wherein the attachment is a file.

1 10. (Original) The method of claim 1, wherein the reference specifying the
2 location of the attachment includes a uniform resource locator (URL).

1 11. (Currently amended) A computer-readable storage medium storing
2 instructions that when executed by a computer cause the computer to perform a
3 method for replacing an attachment to an email message with a reference to a
4 location of the attachment, the method comprising:
5 receiving the email message;
6 examining the email message to determine if the email message includes
7 an attachment; and
8 if the email message includes the attachment, asking a sender of the email
9 message whether to replace the attachment with a reference specifying the
10 location of the attachment;
11 if the sender agrees to replace the attachment,
12 storing the attachment at a location on a communication
13 network from which the attachment can be retrieved,
14 modifying the email message by replacing the attachment
15 with a reference specifying the location of the attachment on the
16 communication network,
17 sending the modified email message to a recipient of the
18 email message,
19 providing proof of receipt of the contents of the attachment,
20 wherein providing proof of receipt involves:
21 delivering an encrypted version of the
22 attachment,

23 receiving a receipt for the encrypted version
24 of the attachment, wherein the receipt includes a
25 hash of the encrypted attachment, and
26 in response to receiving the receipt for the
27 encrypted version, sending the decryption key for
28 the attachment, wherein sending the decryption key
29 for the attachment in response to receiving the
30 receipt for the encrypted version proves reception of
31 the exact contents of the attachment, and
32 deleting the attachment from the location on the
33 communication network after one of:
34 receiving a notification that all recipients of
35 the email message have retrieved the attachment,
36 and
37 receiving a notification that all recipients of
38 the email message have deleted the email message.

1 12. (Original) The computer-readable storage medium of claim 11,
2 wherein the method further comprises:
3 receiving the modified email message at the recipient; and
4 using the reference specifying the location of the attachment to retrieve the
5 attachment across the communication network.

1 13. (Original) The computer-readable storage medium of claim 12,
2 wherein retrieving the attachment includes authenticating the recipient to a
3 computer system upon which the attachment is stored.

1 14. (Original) The computer-readable storage medium of claim 11,
2 wherein receiving the email message includes receiving the email message at one
3 of,
4 an application residing on a computer system belonging to a sender of the
5 email message;
6 an email server through which the email message is sent;
7 a firewall that protects at least one trusted computer system from
8 communications across the communication network; and
9 a gateway that converts the email message from a first format to a second
10 format.

1 15. (Original) The computer-readable storage medium of claim 11,
2 wherein the method further comprises allowing the attachment to be updated at
3 the location on the communication network.

1 16. (Previously presented) The computer-readable storage medium of
2 claim 11, wherein the method further comprises deleting the attachment from the
3 location on the communication network after at least one of:
4 an expiration of a time period;
5 sending a notification to recipients of the email message that the
6 attachment is to be deleted;
7 receiving a command to delete the attachment from a sender of the email
8 message; and
9 storing the attachment to archival storage.

1 17. (Original) The computer-readable storage medium of claim 11,
2 wherein the communication network includes at least one of:
3 a computer network; and

4 a telephone network.

1 18 (Canceled).

1 19. (Original) The computer-readable storage medium of claim 11,
2 wherein the attachment is a file.

1 20. (Original) The computer-readable storage medium of claim 11,
2 wherein the reference specifying the location of the attachment includes a uniform
3 resource locator (URL).

1 21. (Currently amended) An apparatus that replaces an attachment to an
2 email message with a reference to a location of the attachment, comprising:
3 an examination mechanism that examines the email message to determine
4 if the email message includes an attachment;
5 a replacement mechanism, wherein if the email message includes the
6 attachment the replacement mechanism is configured to, ask a sender of the email
7 message whether to replace the attachment with a reference specifying the
8 location of the attachment;
9 if the sender agrees to replace the attachment the replacement mechanism
10 is further configured to,
11 store the attachment at a location on a communication
12 network from which the attachment can be retrieved,
13 modify the email message by replacing the attachment with
14 a reference specifying the location of the attachment on the
15 communication network,
16 provide proof of receipt of the contents of the attachment,
17 wherein providing proof of receipt involves:

18 delivering an encrypted version of the
19 attachment,
20 receiving a receipt for the encrypted version
21 of the attachment, wherein the receipt includes a
22 hash of the encrypted attachment, and
23 in response to receiving the receipt for the
24 encrypted version, sending the decryption key for
25 the attachment, wherein sending the decryption key
26 for the attachment in response to receiving the
27 receipt for the encrypted version proves reception of
28 the exact contents of the attachment, and
29 send the modified email message to a recipient of the email
30 message; and
31 a deletion mechanism that is configured to delete the attachment from the
32 location on the communication network after one of:
33 receiving a notification that all recipients of the email
34 message have retrieved the attachment, and
35 receiving a notification that all recipients of the email
36 message have deleted the email message.

1 22. (Original) The apparatus of claim 21, further comprising:
2 a second receiving mechanism at the recipient that is configured to receive
3 the modified email message; and
4 a retrieval mechanism at the recipient that is configured to use the
5 reference specifying the location of the attachment to retrieve the attachment
6 across the communication network.

1 23. (Original) The apparatus of claim 22, wherein the retrieval mechanism
2 is configured to authenticate the recipient to a computer system upon which the
3 attachment is stored.

1 24. (Original) The apparatus of claim 21, wherein the replacement
2 mechanism is located on one of,
3 an application residing on a computer system belonging to a sender of the
4 email message;
5 an email server through which the email message is sent;
6 a firewall that protects at least one trusted computer system from
7 communications across the communication network; and
8 a gateway that converts the email message from a first format to a second
9 format.

1 25. (Original) The apparatus of claim 21, further comprising an updating
2 mechanism that is configured to allow the attachment to be updated at the location
3 on the communication network.

1 26. (Previously presented) The apparatus of claim 21, wherein the deletion
2 mechanism is further configured to delete the attachment from the location on the
3 communication network after at least one of:
4 an expiration of a time period;
5 sending a notification to recipients of the email message that the
6 attachment is to be deleted;
7 receiving a command to delete the attachment from a sender of the email
8 message; and
9 storing the attachment to archival storage.

1 27. (Original) The apparatus of claim 21, wherein the communication
2 network includes at least one of:
3 a computer network; and
4 a telephone network.

1 28 (Canceled).

1 29. (Original) The apparatus of claim 21, wherein the attachment is a file.

1 30. (Original) The apparatus of claim 21, wherein the reference specifying
2 the location of the attachment includes a uniform resource locator (URL).